News

Do those CTA heat lamps really make you feel warmer?

Commuters huddle under heat lamps as the wind whips across the elevated CTA Roosevelt station on Tuesday, Jan. 6, 2015. (Michael Tercha, Chicago Tribune)

By **Dawn Rhodes · Contact Reporter**
Chicago Tribune

JANUARY 7, 2015, 3:50 PM

It's a familiar winter scene: CTA train commuters, already braving cold and wind just to make it to their station, huddle beneath the orange-ish glow heat lamps as they await their train.

But do those lamps actually make frosty riders any warmer?

Each overhead fixture has infrared lamps that reach a surface temperature of around 400 degrees Fahrenheit.

Experts say the warming effect on humans is not a mere illusion, like the idea that drinking alcohol makes you feel toasty. The infrared light, though not as luminous as an incandescent bulb at home, still creates loads of energy that can warm a commuter — just not the way you might have expected.

"Our skin tissue is primarily water," said Brian Cannon, assistant professor of physics at Loyola University Chicago. "Water molecules on our skin are able to absorb that light, which makes them move faster. That increased motion is what heat is."

Such technology is particularly efficient because it doesn't rely on the air — with its below-zero wind chills this week — to transfer the heat from source to shivering human. The process is similar to how the body soaks up radiant energy from the sun and feels warmer as a result, according to the European Union's public health website.

The lamps should heat skin and bring up the body's core temperature a bit, Cannon said, but they might be hindered by riders' thick coats, sweaters and scarves.

"(The heat lamp) is not good at penetrating clothing," Cannon said. "We've got so many layers of clothes on to trap the heat so it's really only warming those parts of the body that are exposed."

The Chicago Transit Authority has had heat lamps for more than three decades, according to spokeswoman Tammy Chase. Installed at the above-ground stations and a few bus terminals, the lamps are switched on in mid-October and deactivated around March 31, Chase said.

Many Metra stations also have heat lamps, according to spokesman Michael Gillis. Other stations are outfitted with depots and warming houses heated by thermostat-controlled furnaces. Metra works with other agencies throughout the suburbs to maintain the facilities.

"We have requested, in winter months, that those facilities be left unlocked 24 hours a day, with certain exceptions," Gillis said.

Some other cities also employ outdoor heat systems to make passengers more comfortable.

Many Metro Transit stations and bus shelters in Minneapolis/St. Paul, Minn., have 1600-watt infrared heaters activated by customers, spokesman Drew Kerr said. Additionally, all light rail and commuter stations and several bus stations have heated enclosed shelters. The agency received a federal grant in 2014 to build, replace and upgrade hundreds of bus shelters so more can be heated. Stops along a new rapid transit bus line, expected to begin construction this year, will include roof-mounted heat lamps, according to the agency.

Pittsburgh also cranked up the heat in early 2014, installing heaters at four bus station shelters downtown and on the north side.

cdrhodes@tribpub.com

Twitter @rhodes_dawn

This article is related to: Public Transportation, Chicago Transit Authority, European Union